This listing of claims will replace all prior versions, and listings, of claims in the application.

**In the Claims:**

1-23. Canceled.

24. (CURRENTLY AMENDED) A method for the selective removal of material from the surface of a silicon-containing substrate supported in a container for forming a deepening, comprising the steps of:

applying a mask formed from aluminum onto the substrate surface in accordance with a desired selective removal of material from the surface of the substrate, ~~aluminum being used for forming the mask,~~

dry-etching the substrate to selectively remove material from the surface of the substrate, and

inductively coupling power into the etching medium during dry etching, the inductively coupled power provided by an inductive coupling coil in the form of a cylinder and having a lower edge,

wherein a cavity of a depth of at least 150 µm is generated at an etch rate of at least 2 µm/min,

in turn with etching steps passivation steps are included, and

the substrate surface is kept at a distance from the lower edge of the inductive coupling coil of at least two times~~, preferably at least three times,~~ the mean

free path length of the plasma atoms, or at a distance of at least 8 cm from the lower edge of the inductive coupling coil.

25. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein the substrate is kept at a distance of at least 10 cm from the inductive coupling.

26. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein during etching the pressure is below 15 Pa~~, preferably below 10 Pa, and/or above 1 Pa, preferably above 2 Pa~~.

27. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein material is removed up to the other side of the substrate.

28. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein a mask having a thickness of below 1.5 µm~~, preferably below 0.6 µm,~~ is formed.

29. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein the substrate is masked up to the edge.

30. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein when the mask is applied aluminum is vapor-deposited or sputtered.

31. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein when the mask is applied a metallic layer is etched in accordance with the desired selective removal.

32. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein the metal used contains at least 90% by weight Al.

33. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein the etch position [[(T)]] is determined repeatedly in [[the]] a depthwise direction, etching being concluded or a second etching process, which is qualitatively different or proceeds with operating parameters differing from those of the preceding etching process, being employed when a certain position has been reached.

34. (CURRENTLY AMENDED) The method according to claim 33, ~~characterized in that the~~ wherein a depth is determined by means of a laser light whose properties are analyzed after being reflected by [[the]] a bottom, in particular with respect to [[the]] a first derivative of a detected signal.

35. (CURRENTLY AMENDED) The method according to claim 33, ~~characterized in that~~ wherein in the second etching process etching is carried out in a dry condition with inductively power-coupled plasma, [[the]] a gas pressure being higher and/or [[the]] an applied bias being lower.

36. (CURRENTLY AMENDED) The method according to claim 34, ~~characterized in that~~ wherein in the second etching process etching is carried out in a dry condition with inductively power-coupled plasma, [[the]] a gas pressure being higher and/or [[the]] an applied bias being lower.

37. (CURRENTLY AMENDED) The method according to claim 33, ~~characterized in that~~ wherein after the second etching process a third etching process is applied which is qualitatively different from the preceding etching process or proceeds with operating parameters differing from those of the preceding etching process.

38. (CURRENTLY AMENDED) The method according to claim 34, ~~characterized in that~~ wherein after the second etching process a third etching process is applied which is qualitatively different from the preceding etching process or proceeds with operating parameters differing from those of the preceding etching process.

39. (CURRENTLY AMENDED) The method according to claim 35, ~~characterized in that~~ wherein after the second etching process a third etching process is applied which is qualitatively different from the preceding etching process or proceeds with operating parameters differing from those of the preceding etching process.

40. (CURRENTLY AMENDED) The method according to claim 37, ~~characterized in that~~ wherein in the third etching process etching is carried out in a dry and isotropic condition and preferably with inductively power-coupled plasma, wherein the applied bias may be 0.

41. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized in that~~ wherein before the mask is removed an incineration step for polymer residues on the mask is preferably provided by wet etching.

42. (CURRENTLY AMENDED) The method according to claim 41, ~~characterized in that~~ wherein the incineration is effected by means of oxygen plasma.

43. (CURRENTLY AMENDED) The method according to claim 41, ~~characterized in that~~ wherein the incineration is followed by a treatment with tetramethylammonium hydroxide.

44. (CURRENTLY AMENDED) The method according to claim 42, ~~characterized in that~~ wherein the incineration is followed by a treatment with tetramethylammonium hydroxide.

45. (CURRENTLY AMENDED) The method according to claim 24, ~~characterized by~~ including one or more of the following features:

the material is removed from more than 8%~~, preferably more than 20%,~~ of the substrate surface,

the substrate is a disk-like wafer having a diameter of at least 10 cm~~, preferably at least 15 cm~~.

46. CANCELED.

47. CANCELED.

48. CANCELED.

49. (CURRENTLY AMENDED) A method for the selective removal of material from the surface of a silicon-containing substrate supported in a container for forming a deepening, comprising the steps of:

applying a mask onto the substrate surface in accordance with a desired selective removal of material from the surface of the substrate, aluminum being used for forming the mask,

dry-etching the substrate to selectively remove material from the surface of the substrate, and

inductively coupling power into the etching medium during dry etching, the inductively coupled power provided by an inductive coupling coil in the form of a cylinder and having a lower edge,

wherein a cavity which fully penetrates through the substrate is generated at an etch rate of 2 µm/min,

in turn with etching steps passivation steps are included, and

the substrate surface is kept at a distance from the lower edge of the inductive coupling coil of at least two times~~, preferably at least three times,~~ the mean free path length of the plasma atoms, or at a distance of at least 8 cm from the lower edge of the inductive coupling coil, an electric field is applied between the substrate and the inductive coupling coil.

50. (CURRENTLY AMENDED) A method for the selective removal of material from the surface of a silicon-containing substrate supported in a container for forming a deepening, comprising the steps of:

applying a mask onto the substrate surface in accordance with a desired selective removal of material from the surface of the substrate, aluminum or an aluminum alloy having at least 90% by weight Al or of a composite material having at least 90% by weight Al being used for forming the mask,

dry-etching the substrate to selectively remove material from the surface of the substrate, and

inductively coupling power into the etching medium during dry etching using an inductively power-coupled plasma, the inductively coupled power provided by an inductive coupling coil in the form of a cylinder and having a lower edge,

wherein a cavity of a depth of at least 300 µm is generated at an etch rate of at least 2 µm/min,

in turn with etching steps passivation steps are included, and the substrate surface is kept at a distance from the lower edge of the inductive coupling coil of at least two times~~, preferably at least three times,~~ the mean free path length of the plasma atoms, or at a distance of at least 8 cm from the lower edge of the inductive coupling coil.

51. (NEW) The method according to claim 24, wherein the substrate surface is kept at a distance from the lower edge of the inductive coupling coil of at least three times the mean free path length of the plasma atoms, or at a distance of at least 8 cm from the lower edge of the inductive coupling coil.

52. (NEW) The method according to claim 26, wherein during etching the pressure is below 10 Pa and/or above 1 Pa.

53. (NEW) The method according to claim 28, wherein a mask having a thickness below 0.6 $\mu$m is formed.

54. (NEW) The method according to claim 45, wherein the material is removed from more than 20% of the substrate surface.

55. (NEW) The method according to claim 45, wherein the substrate has a diameter of at least 15 cm.

56. (NEW) The method according to claim 49, wherein the substrate surface is kept at a distance from the lower edge of the inductive coupling coil of at least three times the mean free path length of the plasma atoms, or at a distance of at least 8 cm from the lower edge of the inductive coupling coil.

57. (NEW) The method according to claim 50, wherein the substrate surface is kept at a distance from the lower edge of the inductive coupling coil of at least three times the mean free path length of the plasma atoms, or at a distance of at least 8 cm from the lower edge of the inductive coupling coil.